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(54) Title: LOW-TEMPERATURE, FLUORIDE FREE FIBER GLASS COMPOSITIONS AND PRODUCTS MADE USING SAME

(57) Abstract: An essentially fluoride-free, boron-containing fiber glass composition has a forming window greater than 50°C and a forming temperature less than 1190°C, whereby it can substitute for conventional fluoride and boron-containing fiber glass composition without significantly changing operating parameters of the fiber forming process. The composition comprises: SiO<sub>2</sub> 50 - 54 weight percent, Al<sub>2</sub>O<sub>3</sub> 12 - 15 percent, CaO 22 - 25 percent, MgO 1 - 4 percent, B<sub>2</sub>O<sub>3</sub> 5 - 8 percent, Na<sub>2</sub>O + K<sub>2</sub>O less than 2 percent, Fe<sub>2</sub>O<sub>3</sub> 0.1 - 0.5 percent, F<sub>2</sub> less than 0.1 percent.

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# INTERNATIONAL SEARCH REPORT

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PCT/US 03/26825

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 C03C3/089 C03B37/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 C03C C03B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR 2 692 248 A (VETROTEX FRANCE SOCIÉTÉ ANONYME) 16 June 1992 (1992-06-16) page 2, line 34 -page 4, line 39; example 9 page 7	1,7,10, 14
Y	claims 1-4	1-14
Y	US 2 571 074 A (TIEDE RALPH L ET AL) 9 October 1951 (1951-10-09) column 2, line 33 -column 3, line 34 column 5, line 23-28; claims 1-8	1-15
Y	US 4 771 019 A (PPG INDUSTRIES INC) 29 July 1986 (1986-07-29) column 2, line 41-68 column 3, line 29 -column 4, line 15; claims 1-8	1-15

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 186 077 A (PPG INDUSTRIES INC.) 13 December 1985 (1985-12-13) page 5, line 7-35; claims 1-12 -----	1-15

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Information on patent family members

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